U.S. Application No. 10/721,381

Attorney Docket No.: Q78681

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A An inspecting device for a semiconductor wafer comprising: a holding unit which holds a wafer;

a rotating unit which rotates the wafer by rotating the holding unit;

an aligner unit which optically detects a cutout position and a center position of the wafer rotated held by the rotating holding unit and obtains position determining data of the wafer;

an observing unit for magnifying and observing fine patterns on the wafer, wherein the observing unit includes a camera portion for photoelectrical capture and is being disposed at a position where the wafer held by the holding unit can be observed;

a moving unit which relatively moves the holding unit with respect to the observing unit in an X-Y direction so as to keep a plane of the wafer at a same level; and

a control unit which controls the moving unit and the rotating unit to rotate and move the holding unit so as to position a mask ID of the wafer at a predetermined position within an observation field of the observing unit based on the obtained position data so that the fine patterns at a desired position can be observed; and

judging means for judging whether the mask ID of the wafer is appropriate by comparing image data which is photoelectrically captured by the camera portion and processed with stored reference image data of a mask ID.

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7. (new): The inspection device according to claim 1 further comprising a macro inspection device, wherein when the mask ID of the wafer is appropriate, the wafer is transferred to the macro device by a robot arm.

8. (new): An inspecting device for a semiconductor wafer comprising:

a holding unit which holds a wafer;

a rotating unit which rotates the wafer by rotating the holding unit;

an aligner unit which optically detects a cutout position and a center position of the wafer rotated by the rotating unit and obtains position determining data of the wafer;

an observing unit for magnifying and observing fine patterns on the wafer, wherein the observing unit includes a camera portion for photoelectrical capture and is disposed at a position where the wafer held by the holding unit can be observed;

a moving unit which relatively moves the holding unit with respect to the observing unit in an X-Y direction so as to keep a plane of the wafer at a same level;

a control unit which controls the moving unit and the rotating unit to rotate and move the holding unit so as to position the fine pattern of the wafer at a predetermined position within an observation field of the observing unit based on the obtained position data; and

judging means for judging whether the fine pattern of the wafer is appropriate by comparing image data which is photoelectrically captured by the camera portion and processed with stored reference image data of a fine pattern.

- 9. (new): An inspecting device for a semiconductor wafer comprising:
- a holding unit which holds a wafer;
- a rotating unit which rotates the wafer by rotating the holding unit;

an aligner unit which optically detects a cutout position and a center position of the wafer rotated by the rotating unit and obtains position determining data of the wafer;

an observing unit for magnifying and observing fine patterns on the wafer, wherein the observing unit includes a camera portion for photoelectrical capture and is disposed at a position where the wafer held by the holding unit can be observed;

a moving unit which relatively moves the holding unit with respect to the observing unit in an X-Y direction so as to keep a plane of the wafer at a same level;

a control unit which controls the moving unit and the rotating unit to rotate and move the holding unit so as to position the fine pattern of the wafer at a predetermined position within an observation field of the observing unit based on the obtained position data; and

a machine executable algorithm that judges whether the fine pattern of the wafer is appropriate by comparing image data which is photoelectrically captured by the camera portion and processed with stored reference image data of a fine pattern.